Docket No.: 2213.1004-012
Title: METHODS FOR RAISING...
Inventors: H. William Harris, Jr., et al.

cttggcatta tgctctgtgc tgggggtatt cttgacagca ttcgtgatgg gagtgtttat 60 caaatttcgc aacacccaa ttgttaaggc cacaaacaga gagctatcct acctcctcct 120 gttctcactc atctgctgtt tctccagttc cctcatcttc attggtgaac cccaggactg 180 gacatgccgt ctacgccagc ctgcattcgg gataagtttt gttctctgca tctcctgcat 240 cctggtaaaa actaaccgag tacttctagt gttcgaagcc aagatcccca ccagtctcca 300 tcgtaagtgg tgggggctaa acttgcagtt cctgttagtg ttcctgttca catttgtgca 360

```
agtgatgata tgtgtggtet ggetttaeaa tgeteeteeg gegagetaea ggaaceatga 420
cattgatgag ataattitca ttacatgcaa tgagggctct atgatggcgc ttggcttcct 480
aattgggtac acatgcctgc tggcagccat atrottette tttgcattta aatcacgaaa 540
actgccagag aactttactg aggctaagtt catcaccttc agcatgctca tott
Leu Ala Leu Cys Ser Val Leu Gly Val Phe Leu Thr Ala Phe Val Met
Gly Val Phe Ile Lys Phe Arg Asn Thr Pro Ile Val Lys Ala Thr Asn
Arg Glu Leu Ser Tyr Leu Leu Phe Ser Leu Ile Cys Cys Phe Ser
Ser Ser Leu Ile Phe Ile Gly Glu Pro Gln Asp Trp Thr Cys Arg Leu
                        55
Arg Gln Pro Ala Phe Gly Ile Ser Phe Val Leu Cys Ile Ser Cys Ile
                    70
                                        75
Leu Val Lys Thr Asn Arg Val Leu Leu Val Phe Glu Ala Lys Ile Pro
Thr Ser Leu His Arg Lys Trp Trp Gly Leu Asn Leu Gln Phe Leu Leu
                                105
Val Phe Leu Phe Thr Phe Val Gln Val Met Ile Cys Val Val Trp Leu
                            120
Tyr Asn Ala Pro Pro Ala Ser Tyr Arg Asn His Asp Ile Xaa Asp Glu
                        135
                                            140
Ile Ile Phe Ile Thr Cys Asn Glu Gly Ser Met Met Ala Leu Gly Phe
                                        155
                    150
Leu Ile Gly Tyr Thr Cys Leu Leu Ala Ala Ile Xaa Phe Phe Phe Ala
```

Phe Lys Ser Arg Lys Leu Pro Glu Asn Phe Thr Glu Ala Lys Phe Ile

185

Xaa=any amino acid

195

165

180

Thr Phe Ser Met Leu Ile Phe

170

Inventors: H. William Harris, Jr., et al.

cttggcatta tgctctgtgc tgggggtatt cttgacagca ttcgtgatgg gagtgtttat 60 cagatttcgc aacaccccaa ttgttaaggc cacaaacaga gagctatcct acctcctcct 120 gttctcactc atctgctgtt tctccagctc cctcatcttc attggtgaac cccaggactg 180 gacatgccgt ctacgccagc ctgcattcgg gataagtttt gttctctgca tctcctgcat 240

cctggtcaaa actaaccgag tacttctagt gttcgaagcc aagatcccca ccagtctcca 300 tcgtaagtgg tgggggctaa acttgcagtt cctgttggtg ttcctgttca catttgtgca 360 agtgatgata tgtgtggtct ggctttacaa tgctcctccg gcgagctaca ggaaccatga 420 cattgatgag ataattttca ttacatgcaa tgagggctct atgatggcgc tcggcttcct 480 aattgggtac acatgcctgc tggcagccat atgcttcttc tttgcattta aatcacgaaa 540

METHODS FOR RAISING...

2213.1004-012

Docket No.:

Title:

```
actgccagag aactttaccg aggctaagtt catcaccttc agcatgctca tott
Leu Ala Leu Cys Ser Val Leu Gly Val Phe Leu Thr Ala Phe Val Met
Gly Val Phe Ile Arg Phe Arg Asn Thr Pro Ile Val Lys Ala Thr Asn
                                25
Arg Glu Leu Ser Tyr Leu Leu Leu Phe Ser Leu Ile Cys Cys Phe Ser
Ser Ser Leu Ile Phe Ile Gly Glu Pro Gln Asp Trp Thr Cys Arg Leu
                        55
Arg Gln Pro Ala Phe Gly Ile Ser Phe Val Leu Cys Ile Ser Cys Ile
                    70
                                         75
Leu Val Lys Thr Asn Arg Val Leu Leu Val Phe Glu Ala Lys Ile Pro
                                    90
Thr Ser Leu His Arg Lys Trp Trp Gly Leu Asn Leu Gln Phe Leu Leu
            100
                                105
Val Phe Leu Phe Thr Phe Val Gln Val Met Ile Cys Val Val Trp Leu
                            120 -
                                                 125
        115
Tyr Asn Ala Pro Pro Ala Ser Tyr Arg Asn His Asp Ile Xaa Asp Glu
    130
                        135
Ile Ile Phe Ile Thr Cys Asn Glu Gly Ser Met Met Ala Leu Gly Phe
                                         155
Leu Ile Gly Tyr Thr Cys Leu Leu Ala Ala Ile Cys Phe Phe Ala
                165
                                    170
Phe Lys Ser Arg Lys Leu Pro Glu Asn Phe Thr Glu Ala Lys Phe Ile
                                185
                                                     190
Thr Phe Ser Met Leu Ile Phe
       195
```

Xaa = Any amino acid

FIG. 2

ttggcattat gctctgtgct gggggtattc ttgacagtat tcgtgatgg agtgtttatc 60 agatttcgca acaccccaat tgttaaggcc acaaacagag agctatccta cctcctctg 120 ttctcactta tctgctgttt ctccagetcc ctcatcttca ttggtgaacc ccaggactgg 180 acatgccgtc tacgccagcc tgcattcggg ataagttttg ttctctgcat ctcctgcatc 240 ctggtcaaaa ctaaccgagt acttctagtg ttcgaagcaa agatccccac cagtctccat 300 cgtaagtggt gggggctaaa cttgcagttc ctgttggtgt tcctgttcac atttgtgcaa 360 gtgatgatat gtgtggtctg gctttacaat gctcctccgg cgagctacag gaaccatgac 420 attgatgaga tcattttcat tacatgcaat gagggctcta tgatggcgct tggcttccta 480 attgggtaca catgcctgct ggcagccata tgcttcttct ttgcatttaa atcacgaaaa 540 ctgccagaga attttaccga ggctaaagttc atcaccttca gcatgctcat ctt

2213.1004-012

METHODS FOR RAISING...

H. William Harris, Jr., et al.

Docket No.:

Inventors:

Title:

Leu Ala Leu Cys Ser Val Leu Gly Val Phe Leu Thr Val Phe Val Met Gly Val Phe Ile Arg Phe Arg Asn Thr Pro Ile Val Lys Ala Thr Asn Arg Glu Leu Ser Tyr Leu Leu Phe Ser Leu Ile Cys Cys Phe Ser Ser Ser Leu Ile Phe Ile Gly Glu Pro Gln Asp Trp Thr Cys Arg Leu Arg Gln Pro Ala Phe Gly Ile Ser Phe Val Leu Cys Ile Ser Cys Ile 75 Leu Val Lys Thr Asn Arg Val Leu Leu Val Phe Glu Ala Lys Ile Pro 90. Thr Ser Leu His Arg Lys Trp Trp Gly Leu Asn Leu Gln Phe Leu Leu 105 Val Phe Leu Phe Thr Phe Val Gln Val Met Ile Cys Val Val Trp Leu 120 .125 Tyr Asn Ala Pro Pro Ala Ser Tyr Arg Asn His Asp Ile Xaa Asp Glu 140 Ile Ile Phe Ile Thr Cys Asn Glu Gly Ser Met Met Ala Leu Gly Phe 155 150 Leu Ile Gly Tyr Thr Cys Leu Leu Ala Ala Ile Cys Phe Phe Ala 165 170 Phe Lys Ser Arg Lys Leu Pro Glu Asn Phe Thr Glu Ala Lys Phe Ile 180 185 Thr Phe Ser Met Leu Ile Phe 195

Xaa = Any amino acid

Leu Thr Ile Phe Ala Val Leu Gly Ile Leu Ile Thr Ser Phe Val Leu Gly Val Phe Ile Leu Ala Leu Cys Ser Val Leu Gly Val Phe Leu Thr Ala Phe Val Met Gly Val Phe Ile Leu Ala Leu Cys Ser Val Leu Gly Val Phe Leu Thr Ala Phe Val Met Gly Val Phe Ile Salmon ORF Leu Ala Leu Cys Ser Val Leu Gly Val Phe Leu Thr Val Phe Val Met Gly Val Phe Ile 58 Arctic char ORF R. Trout ORF 30 Lys Phe Arg Asn Thr Pro Ile Val Lys Ala Thr Asn Arg Glu Leu Ser Tyr Leu Leu 118 SKCaR ORF Lys Phe Arg Asn Thr Pro Ile Val Lys Ala Thr Asn Arg Glu Leu Ser Tyr Leu Leu Leu 118 Salmon ORF Arctic char ORF Arg Phe Arg Asn Thr Pro Ile Val Lys Ala Thr Asn Arg Glu Leu Ser Tyr Leu Leu Leu Arg Phe Arg Asn Thr Pro Ile Val Lys Ala Thr Asn Arg Glu Leu Ser Tyr Leu Leu Leu 118 R. Trout ORF Phe Ser Leu Ile Cys Cys Phe Ser Ser Ser Leu Ile Phe Ile Gly Glu Pro Ara Asp Trp 178 SKCaR ORF Phe Ser Leu Ile Cys Cys Phe Ser Ser Ser Leu Ile Phe Ile Gly Glu Pro Gln Asp Trp Phe Ser Leu Ile Cys Cys Phe Ser Ser Ser Leu Ile Phe Ile Gly Glu Pro Gln Asp Trp Salmon ORF 178 Arctic char ORF Phe Ser Leu Ile Cys Cys Phe Ser Ser Ser Leu Ile Phe Ile Gly Glu Pro Gln Asp Trp 178 R. Trout ORF Thr Cys Arg Leu Arg Gln Pro Ala Phe Gly Ile Ser Phe Val Leu Cys Ile Ser Cys Ile 238 Thr Cys Arg Leu Arg Gln Pro Ala Phe Gly Ile Ser Phe Val Leu Cys Ile Ser Cys Ile SKCaR ORF Thr Cys Arg Leu Arg Gln Pro Ala Phe Gly Ile Ser Phe Val Leu Cys Ile Ser Cys Ile 238 Salmon ORF Arctic char ORF Thr Cys Arg Leu Arg Gln Pro Ala Phe Glv Ile Ser Phe Val Leu Cys Ile Ser Cys Ile 238 R. Trout ORF 90 Leu Val Lys Thr Asn Arg Val Leu Leu Val Phe Glu Ala Lys Ile Pro Thr Ser Leu His Leu Val Lys Thr Asn Arg Val Leu Leu Val Phe Glu Ala Lys Ile Pro Thr Ser Leu His 298 SKCaR ORF Leu Val Lys Thr Asn Arg Val Leu Leu Val Phe Glu Ala Lys Ile Pro Thr Ser Leu His 298 Salmon ORF Arctic char ORF Leu Val Lys Thr Asn Arg Val Leu Leu Val Phe Glu Ala Lys Ile Pro Thr Ser Leu His 298 R. Trout ORF 110 Arg Lys Trp Val Gly Leu Asn Leu Gln Phe Leu Leu Val Phe Leu Cys Ile Leu Val Gln 358 SKCaR ORF Arg Lys Trp Trp Gly Leu Asn Leu Gln Phe Leu Leu Val Phe Leu Phe Thr Phe Val Gln 358 Arctic char ORF Arg Lys Trp Trp Gly Leu Asn Leu Gln Phe Leu Val Phe Leu Phe Thr Phe Val Gln 358 Arg Lys Trp Trp Gly Leu Asn Leu Gln Phe Leu Leu Val Phe Leu Phe Thr Phe Val Gln 358 R. Trout ORF 130 SKCaR ORF

The Val Thr Cys Ile The Trp Leu Tyr Thr Ala Pro Pro Ser Ser Tyr Arg Asn His Glu 418
Salmon ORF

Val Met Ile Cys Val Val Trp Leu Tyr Asn Ala Pro Pro Ala Ser Tyr Arg Asn His Asp 418
Arctic char ORF

Val Met Ile Cys Val Val Trp Leu Tyr Asn Ala Pro Pro Ala Ser Tyr Arg Asn His Asp 418
R. Trout ORF

Val Met Ile Cys Val Val Trp Leu Tyr Asn Ala Pro Pro Ala Ser Tyr Arg Asn His Asp 418 150 SKCaR ORF

Leu Glu Asp Glu Val Ile Phe Ile Thr Cys Asp Glu Gly Ser Leu Met Ala Leu Gly Phe 478
Salmon ORF

Ile - Asp Glu Ile Ile Phe Ile Thr Cys Asn Glu Gly Ser Met Met Ala Leu Gly Phe 475
Arctic char ORF Ile - Asp Glu Ile Ile Phe Ile Thr Cys Asn Glu Gly Ser Met Met Ala Leu Gly Phe 475 Ile - Asp Glu Ile Ile Phe Ile Thr Cys Asn Glu Gly Ser Met Met Ala Leu Gly Phe 475 R. Trout ORF

Docket No.:

Inventors:

Title:

2213.1004-012

METHODS FOR RAISING...

H. William Harris, Jr., et al.

FIG. 4A

Docket No.: 2213.1004-012
Title: METHODS FOR RAISING...
Inventors: H. William Harris, Jr., et al.

```
SKCaR ORF
Salmon ORF
Arctic char ORF
R. Trout ORF

SKCaR ORF
Salmon ORF
Arctic char ORF
Salmon ORF
Arctic char ORF
R. Trout ORF

SKCaR ORF
Salmon ORF
Arctic char ORF
Salmon ORF
Leu Ile Gly Tyr Thr Cys Leu Leu Ala Ala Ile Ser Phe Phe Phe Ala Phe Lys Ser Arg 535
Leu Ile Gly Tyr Thr Cys Leu Leu Ala Ala Ile Cys Phe Phe Phe Ala Phe Lys Ser Arg 535

190

SKCaR ORF
Salmon ORF
Arctic char ORF
Lys Leu Pro Glu Asn Phe Thr Glu Ala Lys Phe Ile Thr Phe Ser Met Leu Ile Phe 592
Arctic char ORF
Lys Leu Pro Glu Asn Phe Thr Glu Ala Lys Phe Ile Thr Phe Ser Met Leu Ile Phe 592
Arctic char ORF
Lys Leu Pro Glu Asn Phe Thr Glu Ala Lys Phe Ile Thr Phe Ser Met Leu Ile Phe 592
Arctic char ORF
Lys Leu Pro Glu Asn Phe Thr Glu Ala Lys Phe Ile Thr Phe Ser Met Leu Ile Phe 592
Arctic char ORF
Lys Leu Pro Glu Asn Phe Thr Glu Ala Lys Phe Ile Thr Phe Ser Met Leu Ile Phe 592
Arctic char ORF
```

Decoration 'Decoration #1': Box residues that match SKCaR ORF exactly.

FIG. 4B

Docket No.: 2213.1004-012
Title: METHODS FOR RAISING...
Inventors: H. William Harris, Jr., et al.

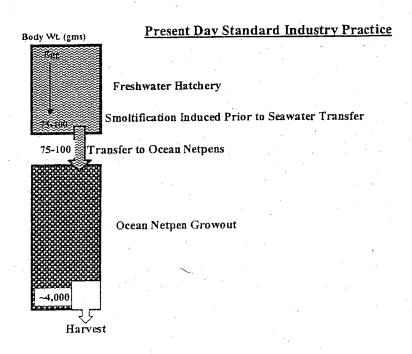


FIG. 5

2213.1004-012 Docket No.:

METHODS FOR RAISING...

Title: H. William Harris, Jr., et al. Inventors:

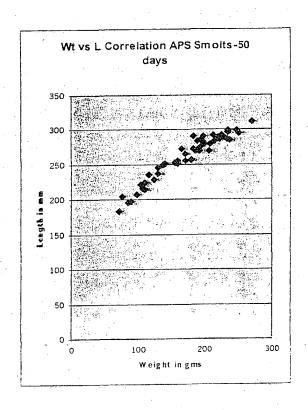


FIG. 6

Docket No.:

2213.1004-012

Title:

METHODS FOR RAISING...

Inventors:

H. William Harris, Jr., et al.

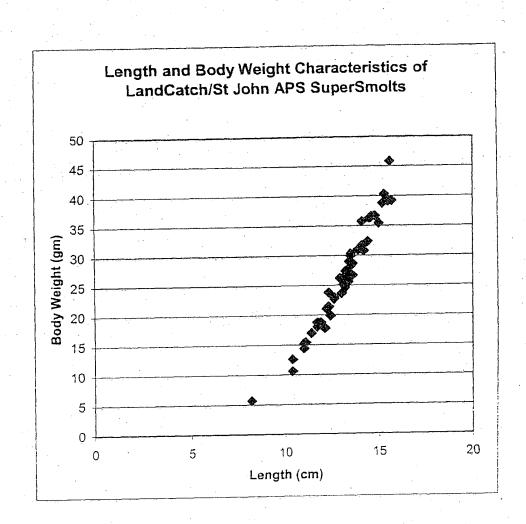


FIG. 7

Title: METHODS FOR RAISING... Inventors: H. William Harris, Jr., et al.

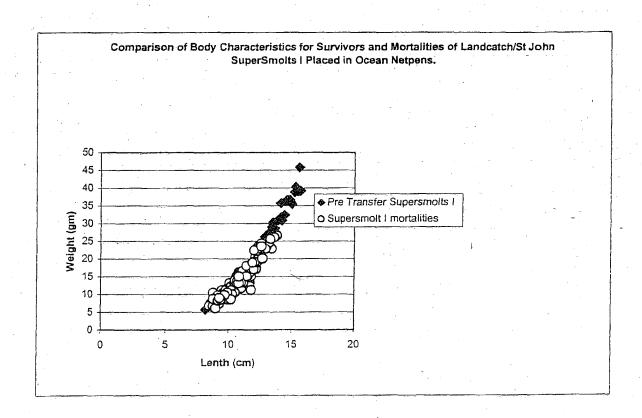


FIG. 8

Docket No.: 2213.1004-012
Title: METHODS FOR RAISING...

Inventors: H. William Harris, Jr., et al.

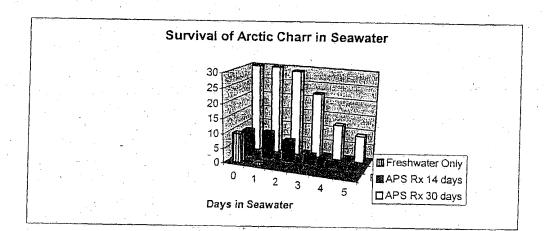


FIG. 9

Title: METHODS FOR RAISING...

Inventors: H. William Harris, Jr., et al.

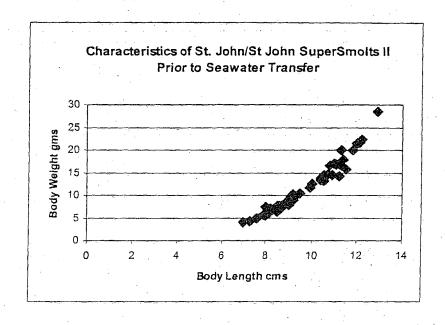


FIG. 10

Title: METHODS FOR RAISING...
Inventors: H. William Harris, Jr., et al.

FIG. 11A

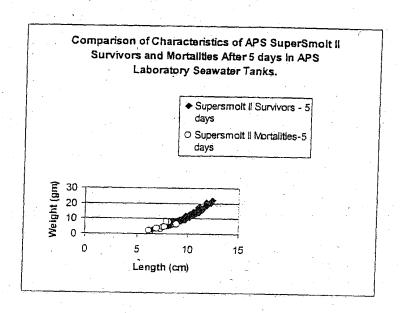
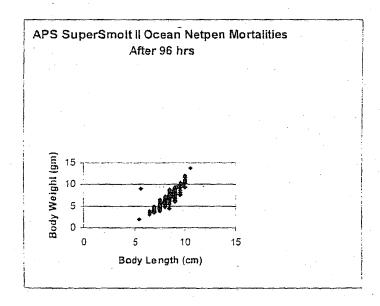


FIG. 11B



Title: METHODS FOR RAISING...
Inventors: H. William Harris, Jr., et al.

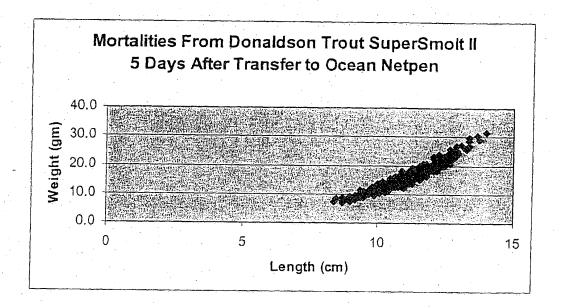


FIG. 12

2213.1004-012 Docket No.: METHODS FOR RAISING... Title:

H. William Harris, Jr., et al. Inventors:

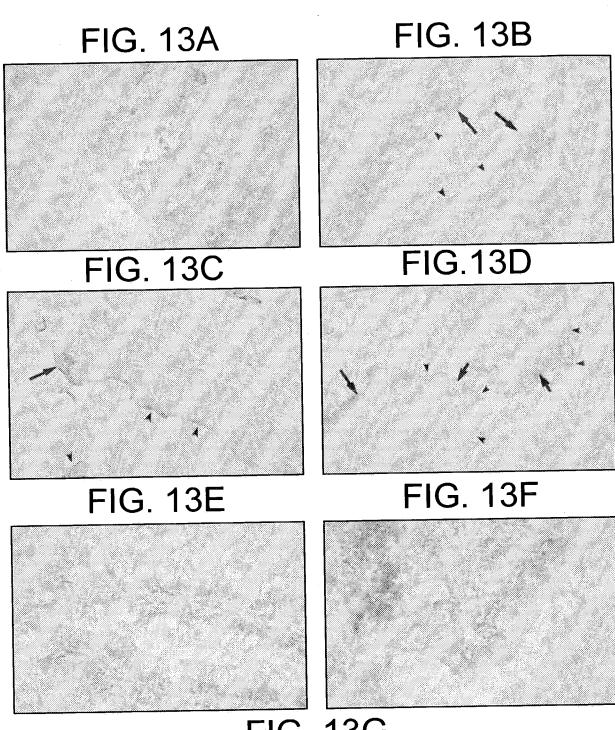
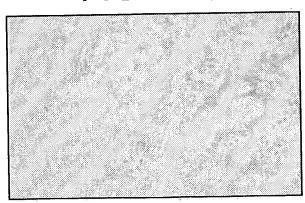


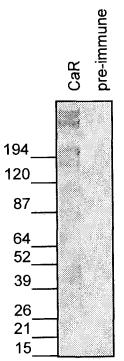
FIG. 13G



Title: METHODS FOR RAISING... H. William Harris, Jr., et al. Inventors:

FIG. 14

FIG. 15



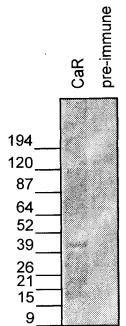
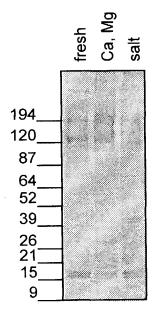


FIG. 17

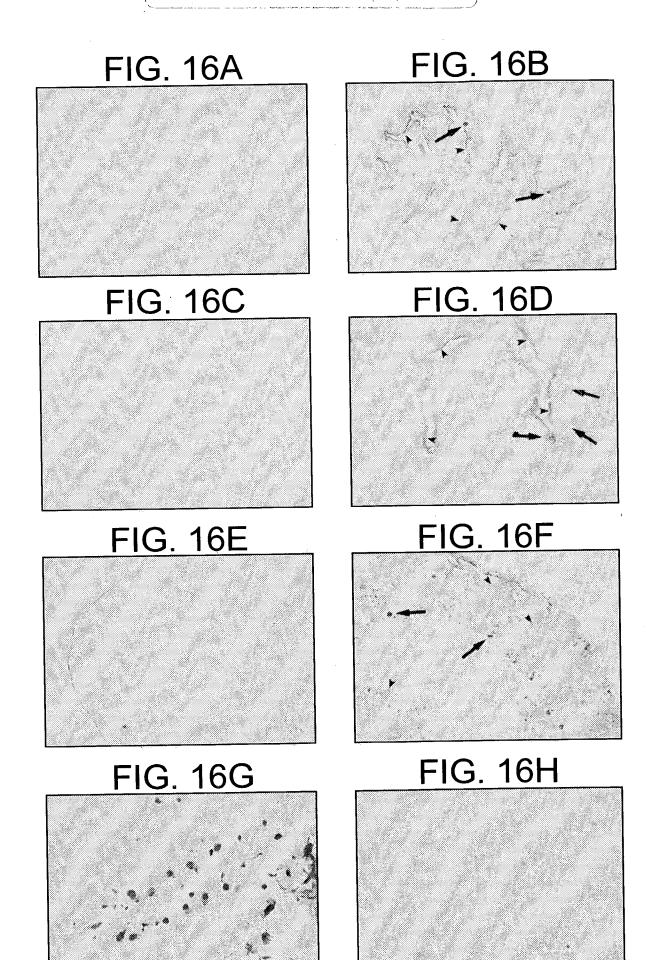


Title:

METHODS FOR RAISING...

Inventors: H. V

H. William Harris, Jr., et al.



Title: Inventors: METHODS FOR RAISING... H. William Harris, Jr., et al.

FIG. 18A

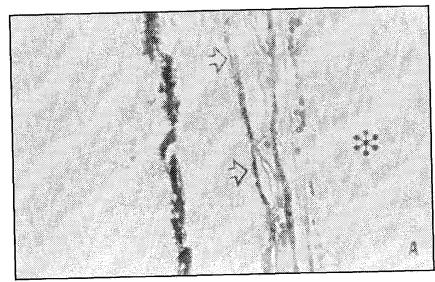


FIG. 18B



FIG. 18C



Docket No.: 2213.1004-012 Title: METHODS FO

Title: METHODS FOR RAISING... Inventors: H. William Harris, Jr., et al.

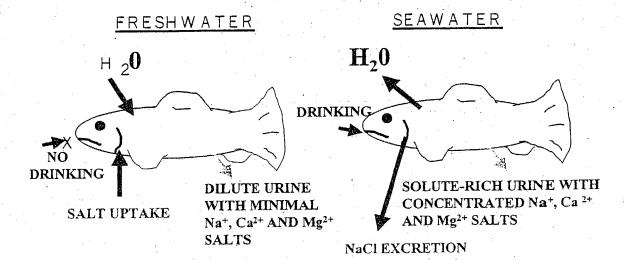


FIG. 19

Docket No.: 2213.1004-012
Title: METHODS FOR RAISING...
Inventors: H. William Harris, Jr., et al.

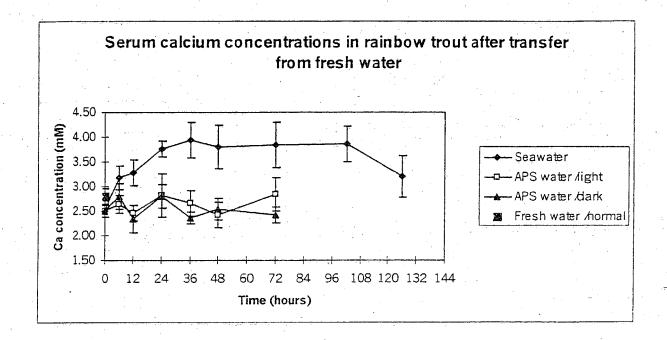


FIG. 20

Title: METHODS FOR RAISING...

Inventors: H. William Harris, Jr., et al.

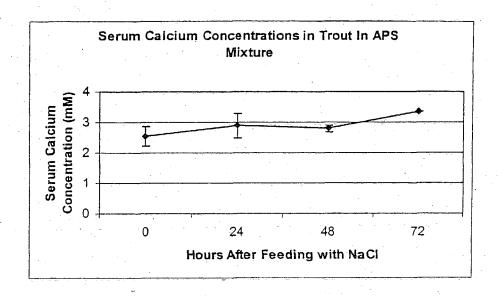
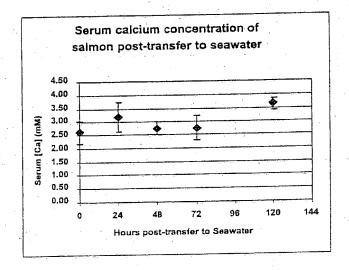


FIG. 21

Docket No.: 2213.1004-012 Title: METHODS FO

Inventors:

METHODS FOR RAISING... H. William Harris, Jr., et al.



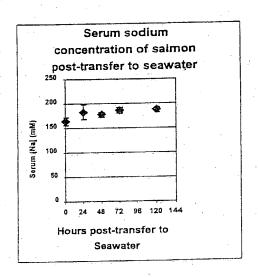
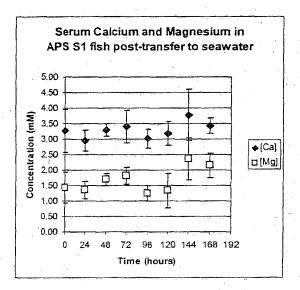


FIG. 22A

FIG. 22B

Title: METHODS FOR RAISING...

Inventors: H. William Harris, Jr., et al.



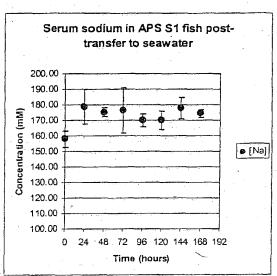


FIG. 23A

FIG. 23B

Title: METHODS FOR RAISING... Inventors: H. William Harris, Jr., et al.

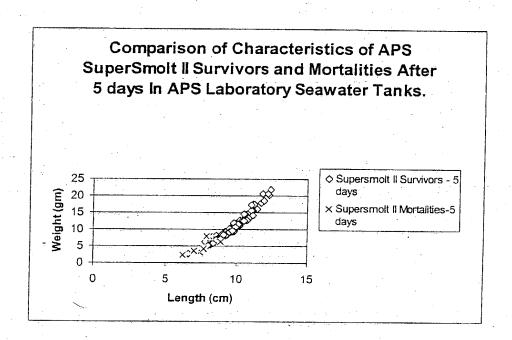


FIG. 24

Title: ME

METHODS FOR RAISING...

Inventors:

H. William Harris, Jr., et al.

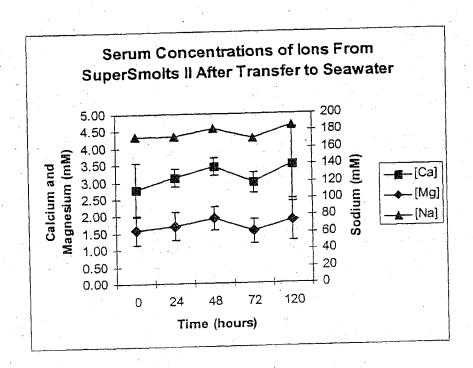


FIG. 25

Docket No.: Title:

2213.1004-012 METHODS FOR RAISING... H. William Harris, Jr., *et al*

Inventors:

FIG. 26A

_									10									2	0	_								30									4(ð
	TTTTTT	T T T T T T	999999	00000		A A A A A	TTTTT	TTTTT	A A A A A	TTTTTT	000000		TTTTTT		T T T T T T	90000	T T T T	000000								A A A A A	TTTTTT	TTTTTT	000000	TTTTTT	T T T T T	99999	A A A A A		A A A A A	G G G G G		Atlantic Salmon Char Chum Salmon Coho Salmon King Salmon Pink Salmon Sockeye Salmon Trout
									7 0									6	0	-								70									80	- } ·
T T T T T	TTTTT	00000	00000	T T T T	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	A A A A	T T T T	66666	9999	9999	A A A A A	6 6 6 6 6	TTTTT	90000	T T T T T	T T T	T	4		A A A		A A A A	J T T T T	TTTTT	TTTTT		900000		A A A A A	A A A A A		4					A A A A A A A	Atlantic Salmon Char Chum Salmon Coho Salmon King Salmon Pink Salmon Sockeye Salmon Trout
	90 100										110												120	_														
TTTTTT	TTTTT	99999	T 1 T 1 T 1 T 1		4 4 4 4 4 4 4	\$ (\$ (\$ (\$ (\$ (A A A A A		A A A A	A , A , A , A , A	A (A			A A A		A A A A A	00000		TTTTTT	A A A A A	TTTTT			T T T T T T	A A A A A					T T T T				Atlantic Salmon Char Chum Salmon Coho Salmon King Salmon Pink Salmon Sockeye Salmon Trout
						_		13	0									14	a			<u> </u>					1	50					•				160	
000000	7 1 7 1 7 1 7 1 7 1				A A		T T T T			4						6	T T T T T	TTTTT	T T T T T T	TOT TT	T T T T T			A A A A A	999999		T (T			T T T T		AAAAA	T T T T		TTTTT	TTTTT		Atlantic Salmon Char Chum Salmon Coho Salmon King Salmon Pink Salmon Sockeye Salmon Trout
								17										180									19	L									200	•
A A A A A	T 1 T 1 T 1 T 1			TTTTT		A A A	. A A A A) 4) 4) 4) 4) 4		A A A A		TTTTTT	999999	000000	AAAAAAA		A A A A A	T T T T T	000000			G G G G G			AAAAAA		9 9 9 9 9			A A A A A	999999		Atlantic Salmon Char Chum Salmon Coho Salmon King Salmon Pink Salmon Sockeye Salmon Trout

Docket No.: Title:

2213.1004-012 METHODS FOR RAISING... H. William Harris, Jr., *et al.*

Inventors:

FIG. 26B

-								-										770																				
									10			٠		. :	220													30									40	
(. T	G	C	Α	T	T	C	G	G	G	A.	T	Α	Α	G	Τ	T	T	Ī	G	7	(T	C	T	G	C	Α	T (CT	C	C	T	G	C	A	T Atlantic Salm	on ·
(_ T	G	C	A	T	Т	C	G	G	G	Α	T	A	A	G	Ŧ	T	T	Γ .	G	[.]		1		T	G	C	Α	T (C T	C	C	T	Ğ	Ç	A	T Char	- '
(. T	G	C	Α	T	T	C	G	G	G	A	T	A	A	G	T	T	Γ.	F +	G	[]	(.]	(T	G	C	Α	{ (((T	6	(A	T Chum Salmon	
(T	.(: C	A	T	T	C	G	G	G	A	T	A	A	G	Ţ	Γ.	Γ	-	G I		. (. 1	ر د	1	نا). س	<u></u>	Α .	l (. I	ر	(<u> </u>	G	Ć	A	T Coho Salmon	
(. T	G	· C	A	Ţ	Ţ	C	Ģ.	G	G	Α	T	A	A	G	1	ļ.,	 	1	ا زا	- 1	- /	. - T	ر) م	T	0	6	Α -	1 (7 (. I	· ~	_	+	6	_	A.	T King Salmon T Pink Salmon	
- (G	(A	+	1	<u>_</u>	٥	<u>د</u>	Ġ	A	1	A	A	6	۱ ۳	۱ -	(r -		ب 	- 7	- /	. I	٠.	T	G.	ر د	A :	r (- I		ر.	+	٥	c	Α.	T Sockeye Salmor	· ·
(. ! - +	ر) ص		A	 	 -	Ć	6	6	<u>ن</u>	A	1	A	A	6	1 T	: T	ነ ፫ -		יני כיז	י די	- 7	. ' - T	٠,	7	٥	c	Δ	r (- ' - T	ک	ć	Ť	٥	c	Δ.	T Trout	• :
,	- 1	٠ ٠		A	ı	1	C	u	LE .	u	A	١.	A	A	u	٠	1.	•	. '	u	, ,		٠ ١			. •	_	f	, ,	•	_	_	•	•	•			
-					_		_		1 50	· · ·	7.57		-				٠,	26	ia.						270											2:	T 80	
_					- 10	199					_	_			_	_	_			- 1			-		—			1	- 7	· T	r	_	Α_	Α.	7	_	1	nn.
(T	G	G	T	M	A	Α.	A	Α ΄	۲	!	A	A	(<u> </u>	(g /	A (3. : 	} A		. !	· T	ب م.	7	A	C	1 C	, , , ,	י רד	~	ď	A A	٨	c.	ر	Atlantic Salmo Char	JII .
(ص	G	1	(A	Α.	A	Ą	(1	A	A	<u></u>	ر د	ს . -	4 (1 / T /		. ! - 7	- 	٠ ر	Ť	Α.	G.	T (י הינ	, , T	٠.	G	Δ	Δ	6	C	A Chum Salmon	
(. (. J	ی .	٥	1	۲	A	A	A A	A	ر د	T	Ä	A	Č	Ċ	G .	-1 · Λ Δ (:	Τ /	. (- '	- T	٠,	·F	Δ	G	Ť	. 1	T	č	G	A	A	Ğ	č.	A Coho Salmon	
-	خ -	· т		c	Т	^	Λ	Λ	Δ	Δ	(Т	Δ .	- Δ	Ċ	(G.	Δ (; .	T A	((. T	. T	. C	Т	Α	G	Τ.(3 T	T. T.	. C	G	Α	Α	G.	C A	A King Salmon	
•	ح -	٠,	· .	c.	Ŧ	C	٨	٨	٨	Δ	_	Τ	Δ	Δ	$\overline{}$	C	G	Δ (;	τ 1	(٦ -	· T	· C	Τ	·A	G	T (ŝΙ	ΓT	C	G	Α	A	G	C_{i}	A Pink Salmon 🦠	
- (- 6	• т		6	т	\sim	٨	Δ	Λ	Δ	C	Т	Δ	Δ	$\overline{}$	\mathcal{C}	G.	Δ (; .	Τ /	l C	7	- Т	· C	Т	Α	G	T	. 1	T	C	G	Α	Α	G	\cup I	a Sockeye Salmoi	1
(: 0	T	G	G	Ť	č	A	A	A	A	C	Ť	Α	A	Ċ.	Ċ	Ġ.	A (د	T	(. 1	T	C	T	A	G	Ţ	i T	T	C	C	A	A	C	C	A Trout	
						٠,			_																												· -	
								2	90	,						-	·	30	00				•				3	10								32	20	
-	Δ	G	Δ	T	Ċ	_	_	7	<u> </u>	C	Ċ	Δ	G	Т	Ĉ	T	c	7	\	Ť ((, 1	A	A	G	T	G	G 1		G	G	G	G	C	T	Α /	A Atlantic Salmo	วท
- 1	Δ	G	Δ	Т	C	C	C	C	A	C	C	A	G	T	C	T	C	C A	١.	Τ (. (; T	- A	A	G	Τ	G	G 7	(G	G	G	G	C	Τ	A A	4 Char	
. 1	Δ	G	Δ	Т	\mathbf{c}	$\overline{}$	((Δ	(C	A	G	T	C	Τ.	C	C A	١.	Τ (. (, 1	Ā	Α	G	Τ	G	G T		; G	G	G	G	C	T	A A	A Chum Salmon	
	Δ	G	Δ	Ŧ	(((C	Δ	\boldsymbol{c}	C	Д	G	Ţ	C	T	C	C A	Ι.	Τ ((, 1	A	Α	G	Ţ	G	GI	(Ģ	G	G	G	C	T	A A	A Coho Salmon	
#	A	G	A	T	C	C	C	C.	A	C	C	A	G	T,	C	T	C	C /	Ι.	Τ (. (, T	A	A	G	T	G	G T	G	Ģ	G	G	G	C	Ţ	A A	A King Salmon	
ļ	A	G	A	T	Ç	C	Ç	C	A	C	C	A	Ģ	T	C	T	C -	C A	١.	Τ (. (, ,	A	Ą	G	Ţ	G	G I	(G	G	a	G	C	ľ	Α /	A Pink Salmon	_
1	A	G	Α	T	C	C	C	C .	A	C	C	A	G	T	C	T ·	C ,		1	Γ (. (ī	A	A	G	1	Ġ	G 1	. (d	י ני	Ģ	(ı	G	<u>(</u>	. T	A A	Sockeye Salmor	1
Å	A	Ġ	A	T	C	C	C	C	A	C	C	A	G	ì.	C)	Ć .	L	4	1 (. (ı 1	A	A	Ų	ľ	u	G 1		יטנ	u	'n	u	C	١.	Η ,	A Trout	
-		-			_				70	-								34	10									T 50								36	- %a	
_								-	30		_	_	_	-	-			Ξ.							T	Ť		1 .	Α.		т.	_		т ,	-	- 1	Atlantic Salmo	ממ
,	C	T	Ŧ	G	Ć	A	G	! T	1	<u>(</u>	(1 T	G	! T	/ T	Mil.	, .	1 (, , , ,	٠ -		· †	G	Ť	T	٠,	A C	Α.	T	T	T	ر د	r ' T	G (- M	Char	,,,
Α.		. l.	! T	(u	٠.	A A	Ų.	I T	l T	<u></u>	c	<i>।</i> T	c	T	T	ر د		Τ (, , T 1	٠ -		· T	G	Ť	Ť	Ċ	A C	΄ Α	T	Ť	Ť	G :	Т	G	C A	Chum Salmon	
,		1 T	T	C	C.	A A	G C	† T	T	c	c	Ť	G	Ť	Ť	G		T - (, , []			T	G	Ť			A C					Ğ.		G	C A		
			Ť							C			G	_		G :				T 1			T	G	Ť	T	Ċ	A C	. A	T	Τ	Т	G .	T	G	C A	King Salmon	
	. –	-	Ť		-			T	Ť	Ċ	Č	Ť	G	Ť						7 1								A C			Ţ	Ţ	G	Ţ	G	C A	Pink Salmon	
į	Ċ	Ť	T	G	Ċ	A	Ġ	Т	T	C	C	T	G	T	Т	G	G	T	; -	T 1	- (. (. T	G	T	Τ	C	A C	. A	T	T	T	G	Т	G	C A	l Sockeye Salmor	1
4	, C	Т	T	G	C	A	G	T	T	C	C	Τ	G	T	T	G	G	7 (-	٢٦	. (T	G	T	T	C	A C	A	T	T	T	G	Τ :	G	C A	Trout	
_											-		 -		-									1									_					
	_								70									38 L										90 	:					_		40	_	
. 7	G	T	G	Á	T	G	A	Τ	A	Τ	G	T	G	T	G	G	T	C 1	(s (; (. T	· T	Т	A	C	A	A T	G	C	T	C	C	T	()	((Atlantic Salmo	on .
- /	G	T	G	A	Ţ	G	A	Τ	A	Τ,	G	T	G	T	G	G	Τ.	C 7	Γ. (G (; (. 1	· T	T	A	C	A	A T	G -	, (Ţ	C	C	Ī			Char	
Þ	G	T	G	A	Ŧ	G	A .	Ţ	A ,	Ţ.	G	T	G	T	G	G	T	C 1	[(G (, (. 1	. T	T	A	Ć	А	A T	. G	. (.	f T	(<u> </u>	, T	('	((Chum Salmon	
. /	(T	G	Ą	T	G	A	T	A	T	G	Ţ	G	Ţ	G	G	1	(¹		<i>ن</i> (٠ .	. [١	1	A	(Д	Αl	. (u		l' T	<u>ر</u>	ر د .	Į T	<u>.</u>	L (⊢∭	Coho Salmon	
- 1	I G	. T	G	Α	Ţ	G	A	Ţ	A	Ť	G	1	Ġ	1	<u>ر،</u>	G .	1·	ر 		և (_ ⁄	ر م د	. l	- T	1	A	ر ر	A A	д; Лт	ں ۔		T	<u>_</u>	ر د	1 ·	ر ر	با م م	King Salmon Pink Salmon	
į	1 (, [A	1	٦	A	 	A	i T	٥	ļ T	C	J T	u C	u c	r T	ر ر -	יו רי	יט ע הי	. C	. 1 - 1	1 T	I. T	Α	7	Δ	~ 1 Δ 1	- 6	, ,	ť	Č	Ċ	T	c	()	Sockeye Salmor	1
,	i (. 1	ن ا م.	A	 -	6	A A	T	A	T	٥	T	C	T	ď	C.	r T	ر ر .	, '	יני הי	ب <u>ر</u>		- T	+	Δ	(Δ	ΔΙ			Ť	Ċ	C	T	č	~ :# ((Trout	
,	4 (1	U	н	1	u	А	,	А	,	J	1	J	•	J		•	•	•	٠, ٠	, .	٠ '	•	•	,,		•				ď	-	-		-			

Docket No.: 2213,1004-012 Title: METHODS FO

METHODS FOR RAISING...

Inventors: H. William Harris, Jr., et al.

	**				
	410	420	430	440	
	C A G G A A C C A C A G G A A C C A C A G G A A C C A C A G G A A C C A C A G G A A C C A C A G G A A C C A C A G G A A C C A C A G G A A C C A C A G G A A C C A	T	G A G A T C A G A G A T (A)	T T T T C A T T T T C A T T T T C A T T T T C A	Chum Salmon Coho Salmon King Salmon Pink Salmon Sockeye Salmon
	450	460	470	480	
TTACATGC TTACATGC TTACATGC TTACATGC	A A T G A G G G C A A T G A G G G C A A T G A G G G C A A T G A G G G C A A T G A G G G C A A T G A G G G C A A T G A G G G C A A T G A G G G C A A T G A G G G C	T	C G C T T G G C G C T T G G	C T T C C T C T T C C T C T T C C T C T T C C T	Chum Salmon Coho Salmon King Salmon Pink Salmon Sockeye Salmon
	490	500	510	520	
A A T T G G G T A A T T G G G T A A T T G G G T A A T T G G G T	A C A C A T G C C A C A C A T G C C	T G C T G G C A G C T G C T G G C A G C T G C T G G C A G C T G C T G G C A G C T G C T G G C A G C	C A T A T G C C A T A T G C C A T A T G C C A T A T G C	T T C T T C T T C T T C T T C T T C T T C T T C T T C T T C	Chum Salmon Coho Salmon King Salmon Pink Salmon Sockeye Salmon
	530	540	550	560	
T T T G C A T T T T T G C A T T T T T G C A T T T T T G C A T T T T T G C A T T	TAAATCACG.	A A A A C T G C C A A A A A C T G C C A A A A A C T G C C A A A A A C T G C C A A A A A C T G C C A-	G A G A A T T G A G A A T T T G A G A A T T T G A G A	T T A C C G T T A C C G T T A C C G T T A C C G T T A C C G T T A C G	Chum Salmon Coho Salmon King Salmon Pink Salmon Sockeye Salmon
 	570	580	590	•	
A G G C T A A G A G G C T A A G A G G C T A A G A G G C T A A G	T T C A T C A C C T T C A T C A C C T T C A T C A C C T T C A T C A C C T T C A T C A C C T T C A T C A C C T T C A T C A C C T T C A T C A C C	T T C A G C A T G C T T C A G C A T G C T T C A G C A T G C T T C A G C A T G C T T C A G C A T G C	T C A T C T T T C A T C T T		Atlantic Salmon Char Chum Salmon Coho Salmon King Salmon Pink Salmon Sockeye Salmon Trout

Decoration 'Decoration ± 1 ': Shade (with black at 48% fill) residues that differ from the Consensus.

Leu Ala Leu Cys Ser Val Leu Gly Val Phe Leu Thr Ala Phe Val Met Gly Val Phe Ile Atlantic Salmon ORF Leu Ala Leu Cys Ser Val Leu Gly Val Phe Leu Thr Ala Phe Val Met Gly Val Phe Ile Char ORF teu Ala Leu Cys Ser Val Leu Gly Val Phe Leu Thr Ala Phe Val Met Gly Val Phe Ile Chum Salmon ORF Leu Ala Leu Cys Ser Val Leu Gly Val Phe Leu Thr Ala Phe Val Met Gly Val Phe Ile Coho Salmon ORF Leu Ala Leu Cys Ser Val Leu Gly Val Phe Leu Thr Ala Phe Val Met Gly Val Phe Ile King Salmon ORF Leu Ala Leu Cys Ser Val Leu Gly Val Phe Leu Thr Ala Phe Val Met Gly Val Phe Ile Pink Salmon ORF Leu Ala Leu Cys Ser Val Leu Gly Val Phe Leu Thr Ala Phe Val Met Gly Val Phe Ile Sockeye Salmon ORF Leu Ala Leu Cys Ser Val Leu Gly Val Phe Leu Thr Phe Val Met Gly Val Phe Ile Trout ORF Phe Arg Asn Thr Pro Ile Val Lys Ala Thr Asn Arg Glu Leu Ser Tyr Leu Leu Leu Atlantic Salmon ORF Arg Phe Arg Asn Thr Pro Ile Val Lys Ala Thr Asn Arg Glu Leu Ser Tyr Leu Leu Leu Char ORF Arg Phe Arg Asn Thr Pro Ile Val Lys Ala Thr Asn Arg Glu Leu Ser Tyr Leu Leu Leu Chum Salmon ORF Arg Phe Arg Asn Thr Pro Ile Val Lys Ala Thr Asn Arg Glu Leu Ser Tyr Leu Leu Leu Coho Salmon ORF. Arg Phe Arg Asn Thr Pro Ile Val Lys Ala Thr Asn Arg Glu Leu Ser Tyr Leu Leu King Salmon ORF Arg Phe Arg Asn Thr Pro Ile Val Lys Ala Thr Asn Arg Glu Leu Ser Tyr Leu Leu Pink Salmon ORF Arg Phe Arg Asn Thr Pro Ile Val Lys Ala Thr Asn Arg Glu Leu Ser Tyr Leu Leu Sockeye Salmon ORF Arg Phe Arg Asn Thr Pro Ile Val Lys Ala Thr Asn Arg Glu Leu Ser Tyr Leu Leu Leu Trout ORF 121 Phe Ser Leu Ile Cys Cys Phe Ser Ser Ser Leu Ile Phe Ile Gly Glu Pro Gln Asp Trp Atlantic Salmon ORF 121 Phe Ser Leu Ile Cys Cys Phe Ser Ser Leu Ile Phe Ile Gly Glu Pro Gln Asp Trp Char ORF 121 Phe Ser Leu Ile Cys Cys Phe Ser Ser Ser Leu Ile Phe Ile Gly Glu Pro Gln Asp Trp Chum Solmon ORF 121 Phe Ser Leu Ile Cys Cys Phe Ser Ser Leu Ile Phe Ile Gly Glu Pro Gln Asp Trp Coho Salmon ORF 121 Phe Ser Leu Ile Cys Cys Phe Ser Ser Leu Ile Phe Ile Gly Glu Pro Gln Asp Trp King Salmon ORF 121 Phe Ser Leu Ile Cys Cys Phe Ser Ser Ser Leu Ile Phe Ile Gly Glu Pro Gln Asp Trp Pink Salmon ORF 121 Phe Ser Leu Ile Cys Cys Phe Ser Ser Ser Leu Ile Phe Ile Gly Glu Pro Gln Asp Trp Sockeye Salmon ORF 121 Phe Ser Leu Ile Cys Cys Phe Ser Ser Ser Leu Ile Phe Ile Gly Glu Pro Gln Asp Trp Trout ORF 181 Thr Cys Arg Leu Arg Gln Pro Ala Phe Gly Ile Ser Phe Val Leu Cys Ile Ser Cys Ile Atlantic Salmon ORF 181 Thr Cys Arg Leu Arg Gln Pro Ala Phe Gly Ile Ser Phe Val Leu Cys Ile Ser Cys Ile Char ORF 181 Thr Cys Arg Leu Arg Gln Pro Ala Phe Gly Ile Ser Phe Val Leu Cys Ile Ser Cys Ile Chum Salmon DRF 181 Thr Cys Arg Leu Arg Gln Pro Ala Phe Gly Ile Ser Phe Val Leu Cys Ile Ser Cys Ile Coho Salmon ORF 181 Thr Cys Arg Leu Arg Gln Pro Ala Phe Gly Ile Ser Phe Val Leu Cys Ile Ser Cys Ile King Salmon ORF 181 Thr Cys Arg Leu Arg Gln Pro Ala Phe Gly Ile Ser Phe Val Leu Cys Ile Ser Cys Ile Pink Salmon ORF 181 Thr Cys Arg Leu Arg Gln Pro Ala Phe Gly Ile Ser Phe Val Leu Cys Ile Ser Cys Ile Sockeye Salmon ORF 181 Thr Cys Arg Leu Arg Gln Pro Ala Phe Gly Ile Ser Phe Val Leu Cys Ile Ser Cys Ile Trout ORF 241 Leu Val Lys Thr Asn Arg Val Leu Leu Val Phe Glu Ala Lys Ile Pro Thr Ser Leu His Atlantic Salmon ORF 241 Leu Val Lys Thr Asn Arg Val Leu Leu Val Phe Glu Ala Lys Ile Pro Thr Ser Leu His Char ORF 241 Leu Val Lys Thr Asn Arg Val Leu Leu Val Phe Glu Ala Lys Ile Pro Thr Ser Leu His Chum Salmon ORF 241 Leu Val Lys Thr Asn Arg Val Leu Leu Val Phe Glu Ala Lys Ile Pro Thr Ser Leu His Coho Salmon ORF 241 Leu Val Lys Thr Asn Arg Val Leu Leu Val Phe Glu Ala Lys Ile Pro Thr Ser Leu His King Salmon ORF 241 Leu Val Lys Thr Asn Arg Val Leu Leu Val Phe Glu Ala Lys Ile Pro Thr Ser Leu His Pink Salmon ORF 241 Leu Val Lys Thr Asn Arg Val Leu Leu Val Phe Glu Ala Lys Ile Pro Thr Ser Leu His Sockeye Salmon ORF 241 Leu Val Lys Thr Asn Arg Val Leu Leu Val Phe Glu Ala Lys Ile Pro Thr Ser Leu His Trout DRF

2213.1004-012

METHODS FOR RAISING...

H. William Harris, Jr., et al.

Docket No.:

Inventors:

Title:

110 301 Arg Lys Trp Trp Gly Leu Asn Leu Gln Phe Leu Leu Val Phe Leu Phe Thr Phe Val Gln Atlantic Salmon ORF 301 Arg Lys Trp Trp Gly Leu Asn Leu Gln Phe Leu Leu Val Phe Leu Phe Thr Phe Val Gln Char ORF 301 Arg Lys Trp Trp Gly Leu Asn Leu Gln Phe Leu Leu Val Phe Leu Phe Thr Phe Val Gln Chum Salmon ORF 301 Arg Lys Trp Trp Gly Leu Asn Leu Gln Phe Leu Leu Val Phe Leu Phe Thr Phe Val Gln Coho Salmon ORF 301 Arg Lys Trp Trp Gly Leu Asn Leu Gln Phe Leu Leu Val Phe Leu Phe Thr Phe Val Gln King Salmon ORF 301 Arg Lys Trp Trp Gly Leu Asn Leu Gln Phe Leu Val Phe Leu Phe Thr Phe Val Gln Pink Salmon ORF 301 Arg Lys Trp Trp Gly Leu Asn Leu Gln Phe Leu Leu Val Phe Leu Phe Thr Phe Val Gln Sockeye Salmon ORF 301 Arg Lys Trp Trp Gly Leu Asn Leu Gln Phe Leu Leu Val Phe Leu Phe Thr Phe Val Gln Trout ORF 130 361 Val Met Ile Cys Val Val Trp Leu Tyr Asn Ala Pro Pro Ala Ser Tyr Arg Asn His Asp Atlantic Salmon ORF 361 Val Met Ile Cys Val Val Trp Leu Tyr Asn Ala Pro Pro Ala Ser Tyr Arg Asn His Asp Char ORF 361 Val Met Ile Cys Val Val Trp Leu Tyr Asn Ala Pro Pro Ala Ser Tyr Arg Asn His Asp Chum Salmon ORF 361 Val Met Ile Cys Val Val Trp Leu Tyr Asn Ala Pro Pro Ala Ser Tyr Arg Asn His Asp Coho Salmon ORF 361 Val Met Ile Cys Val Val Trp Leu Tyr Asn Ala Pro Pro Ala Ser Tyr Arg Asn His Asp King Salmon ORF 361 Val Met Ile Cys Val Val Trp Leu Tyr Asn Ala Pro Pro Ala Ser Tyr Arg Asn His Asp Pink Salmon ORF 361 Val Met Ile Cys Val Val Trp Leu Tyr Asn Ala Pro Pro Ala Ser Tyr Arg Asn His Asp Sockeye Salmon ORF 361 Val Met Ile Cys Val Val Trp Leu Tyr Asn Ala Pro Pro Ala Ser Tyr Arg Asn His Asp. Trout ORF 150 421 Ile Asp Glu Ile Ile Phe Ile Thr Cys Asn Glu Gly Ser Met Met Ala Leu Gly Phe Leu Atlantic Salmon ORF 421 Ile Asp Glu Ile Ile Phe Ile Thr Cys Asn Glu Gly Ser Met Met Ala Leu Gly Phe Leu Char ORF 421 Ile Asp Glu Ile Ile Phe Ile Thr Cys Asn Glu Gly Ser Met Met Ala Leu Gly Phe Leu Chum Salmon ORF 421 Ile Asp Glu Ile Ile Phe Ile Thr Cys Asn Glu Gly Ser Met Met Ala Leu Gly Phe Leu Coho Salmon ORF 421 Ile Asp Glu Ile Ile Phe Ile Thr Cys Asn Glu Gly Ser Met Met Ala Leu Gly Phe Leu King Salmon ORF 421 Ile Asp Glu Ile Ile Phe Ile Thr Cys Asn Glu Gly Ser Met Met Ala Leu Gly Phe Leu Pink Salmon ORF 421 The Asp Glu Ile Ile Phe Ile Thr Cys Asn Glu Gly Ser Met Met Ala Leu Gly Phe Leu Sockeye Salmon ORF 421 Ile Asp Glu Ile Ile Phe Ile Thr Cys Asn Glu Gly Ser Met Met Ala Leu Gly Phe Leu Trout ORF 180 170 481 Ile Gly Tyr Thr Cys Leu Leu Ala Ala Ile Phe Phe Phe Ala Phe Lys Ser Arg Lys Atlantic Salmon ORF 481 Ile Gly Tyr Thr Cys Leu Leu Ala Ala Ile Cys Phe Phe Phe Ala Phe Lys Ser Arg Lys Char ORF 481 Ile Gly Tyr Thr Cys Leu Leu Ala Ala Ile Cys Phe Phe Phe Ala Phe Lys Ser Arg Lys Chum Salmon ORF 481 Ile Gly Tyr Thr Cys Leu Leu Ala Ala Ile Cys Phe Phe Phe Ala Phe Lys Ser Arg Lys Coho Salmon ORF 481 Ile Gly Tyr Thr Cys Leu Leu Ala Ala Ile Cys Phe Phe Phe Ala Phe Lys Ser Arg Lys King Salmon ORF 481 Ile Gly Tyr Thr Cys Leu Leu Ala Ala Ile Cys Phe Phe Phe Ala Phe Lys Ser Arg Lys Pink Salmon ORF 481 Ile Gly Tyr Thr Cys Leu Leu Ala Ala Ile Cys Phe Phe Phe Ala Phe Lys Ser Arg Lys Sockeye Salmon ORF 481 The Gly Tyr Thr Cys Leu Leu Ala Ala Ile Cys Phe Phe Phe Ala Phe Lys Ser Arg Lys Trout ORF 190 Atlantic Salmon ORF 541 Leu Pro Glu Asn Phe Thr Glu Ala Lys Phe Ile Thr Phe Ser Met Leu Ile Char ORF 541 Leu Pro Glu Asn Phe Thr Glu Ala Lys Phe Ile Thr Phe Ser Met Leu Ile Chum Salmon ORF 541 Leu Pro Glu Asn Phe Thr Glu Ala Lys Phe Ile Thr Phe Ser Met Leu Ile Cono Salmon ORF 541 Leu Pro Glu Asn Phe Thr Glu Ala Lys Phe Ile Thr Phe Ser Met Leu Ile King Salmon ORF 541 Leu Pro Glu Asn Phe Thr Glu Ala Lys Phe Ile Thr Phe Ser Met Leu Ile Pink Salmon ORF 541 Leu Pro Glu Asn Phe Thr Glu Ala Lys Phe Ile Thr Phe Ser Met Leu Ile Sockeye Salmon ORF 541 Leu Pro Glu Asn Phe Thr Glu Ala Lys Phe Ile Thr Phe Ser Met Leu Ile

2213.1004-012

METHODS FOR RAISING...

H. William Harris, Jr., et al.

Docket No.:

Inventors:

Title:

Decoration 'Decoration #1': Shade (with black at 40% fill) residues that differ from the Consensus.

Trout ORF

541 Leu Pro Glu Asn Phe Thr Glu Ala Lys Phe Ile Thr Phe Ser Met Leu Ile

Title: Inventors: METHODS FOR RAISING... H. William Harris, Jr., et al.

aattccgttg ctgtcggttc agtccaagtc tcctccagtg caaaatgaga aatggtggtc 60

gccattacag gaacatgcac tacatctgtg ttaatgaaat attgtcagtt atctgaaggt 120 tattaaaatg tttctgcaag gatggcttca cgagaaatca attctgcacg ttttcccatt 180 gtcattgtat gaataactga ccaaagggat gtaacaaaat ggaacaaagc tgaggaccac 240 gttcaccctt tcttggagca tacgatcaac cctgaaggag atggaagact tgaggaggaa 300 atggggattg atcttccagg agttctgctg taaagcgatc cctcaccatt acaaagataa 360 gcagaaatee tecaggeate etetgtaaae gggetggegt agtgtggett ggtcaaggaa 420 cagagacagg gotgoacaat ggotcagott cactgocaac tottattott gggatttaca 480 ORF ctcctacagt cgtacaatgt ctcagggtat ggtccaaacc aaagggccca gaagaaagga 540 gacatcatac tgggaggtet etteccaata caetttggag tageegecaa ggatcaggae 600 ttaaaatcga gaccggaggc gacaaaatgt attcggtaca attttcgagg cttccgatgg 660 ctccaggega tgatattegc aattgaagag attaacaaca gtatgacttt cetgeccaat 720 atcaccctgg gatatcgcat atttgacacg tgtaacaccg tgtccaaggc gctagaggca 780 acactcaget ttgtggeeca gaacaaaate gaetegetga aettagatga gttetgtaae 840 tgetetgace atateceate cacaatagea gtggtegggg caacegggte aggaatetee 900 acggetgtgg ccaatetatt gggattattt tacattecae aggteageta tgeeteeteg 960 agcaggetge teagcaacaa gaatgagtae aaggeettee tgaggaeeat eeccaatgat 1020 gagcaacagg ccacggccat ggccgagatc atcgagcact tccagtggaa ctgggtggga 1080 accotggoag cogaogatga otatggoogo coaggoattg acaagttoog ggaggaggoo 1140 gttaagaggg acatetgtat tgaetteagt gagatgatet eteagtaeta caeceagaag 1200 cagttggagt teategooga egicatecag aacteetogg ccaaggicat egiggicite 1260 tocaatggcc cogacctgga googetcate caggagatag tteggagaaa cateaccgat 1320 eggatetgge tggccagega ggettgggee agetettege teattgecaa gecagagtae 1380 ttccacgtgg tcggcgcac catcggcttc gctctcaggg cggggcgtat cccagggttc 1440 aacaagttee tgaaggaggt ecaceeeage aggteetegg acaatgggtt tgtcaaggag 1500 ttctgggagg agaccttcaa ctgctacttc accgagaaga ccctgacgca gctgaagaat 1560 tecaaggtge cetegeacgg aceggegget caaggggaeg getecaagge ggggaactee 1620 agacggacag coctacgoca cocotgoact ggggaggaga acatoaccag cgtggagaco 1680 ecctacetgg attatacaca cetgaggate tectacaatg tatacgtgge egtetactee 1740 attgetcaeg cectgeaaga catecaetet tgeaaaeeeg geaegggeat etttgeaaae 1800 ggatettgtg cagatattaa aaaagttgag geetggeagg teeteaacea tetgetgeat 1860 ctgaagttta ccaacagcat gggtgagcag gttgactttg acgatcaagg tgacctcaag 1920 gggaactaça ccattatcaa ctggcagctc tecgcagagg atgaateggt gttgttccat 1980 gaggtgggca actacaacgo ctacgotaag occagtgaco gactcaacat caacgaaaag 2040 aaaatectet ggagtggett etecaaagtg gtteetttet ecaactgeag tegagaetgt 2100 gtgccgggca ccaggaaggg gatcatcgag ggggagccca cctgctgctt tgaatgcatg 2160 geatgtgcag agggagagtt cagtgatgaa aacgatgcaa gtgcgtgtac aaagtgcccg 2220 aatgatttet ggtegaatga gaaccacaeg tegtgeateg ceaaggagat egagtacetg 2280 tegtggaegg agecettegg gategetetg accatetteg eegtactggg cateetgate 2340 acctcetteg tgctgggggt cttcatcaag ttcaggaaca ctcccatcgt gaaggccacc 2400 aacegggagt tgtcctacct gctgctcttc tccctcatct gctgcttctc cagetcgctc 2460 atettcateg gegageeeag ggaetggaee tgteggetee geeaacegge etttggeate 2520 agettegtee tgtgcatete etgeateetg gtgaagacea acegggtget getggtette 2580 gaggecaaga teeccaecag ectecaecge aagtgggtgg geetcaaect geagtteete 2640 ctggtcttcc tctgcatcct ggtgcaaatc gtcacctgca tcatctggct ctacaccgcg 2700 ceteceteca getacaggaa ceatgagetg gaggacgagg teatetteat cacetgegae 2760 gagggetege teatggeget gggetteete ateggetaca cetgeeteet egeegecate 2820 tgettettet tegeetteaa gteeegtaag etgeeggaga actteaaega ggetaagtte 2880 atcaccttca geatgitgat citetteate gietggatet cetteatece egectatgie 2940. agcacctacg gcaagtttgt gtcggccgtg gaggtgattg ccatcctggc ctccagcttc 3000 aacaccateg aggaggtgeg etgeageacg geggeeeacg cetteaaggt ggeggeeegg 3120 gecaccetee ggegeagege egegtetege aagegeteca geageetgtg eggeteeace 3180 atotectego cegectegte cacetgeggg cegggeetea ceatggagat geagegetge 3240 Docket No.: Title: Inventors:

2213.1004-012 METHODS FOR RAISING... H. William Harris, Jr., *et al.*

agcacgcaga	aggtcagctt	cggcagcggc	accgtcaccc	tgtcgctcag	cttcgaggag	3300
		cagccgcacg				
		tagacaccac				
		atacaaggcg				
		cacaactatg				
		cagcaccgtc				
		cggcactttg				
		tgacttggat				
		gtgagcagag				
		tcgaattgta				
		gataatttgt				
gactgagatt	gccactgtga	tgacagaact	gttttataac	atttatcatt	gaaacctgga	3960
		ctgtaacaaa				
		tggtaattac				
		aaaaaaaaa				4134

FIG. 28B